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Lifespan Lyme Disease Center

STUDY SUMMARY: LONGER THERAPY SHOWS NO ADDED BENEFIT FOR PERSISTENT LYME DISEASE SYMPTOMS

The benefit of long term antibiotic therapy on Lyme symptoms has been debated for several years although there have been no conclusive studies showing its efficacy. This randomized, double-blind study was conducted in the Netherlands from October 2010 to June 2013. It enrolled 280 patients with symptomatic Lyme disease and patients with *B. Burgdorferi* antibodies and consistent musculoskeletal pain, arthritis, arthralgia, neuralgia, sensory disturbances, dysesthesia, neuropsychological disorders, or cognitive disorders. Efficacy was measured by Quality Of Life (QOL) scores obtained at the beginning, throughout, and at the end of the study.

All participants received 2,000 mg of open-label intravenous Ceftriaxone (one of the standard treatments for Lyme) daily for 14 days. After the initial course, 280 participants were randomly assigned in a 1:1:1 ratio to receive a 12-week course of 100 mg Doxycycline plus placebo twice daily, 500 mg Clarithromycin plus 200 mg Hydroxychloroquine twice daily, or two placebo capsules twice daily.

At the end of the study, there was no significant difference in the QOL scores between the groups receiving long term antibiotics and the placebo group. However, almost half of the patients taking long term antibiotics experienced nausea, diarrhea, and light sensitivity.

Take away message:

The purpose of long term antibiotic regimens is to prevent microbiological relapse. Chronic Lyme symptoms are caused by inflammation. Long-term antibiotics will very often **not** alleviate Lyme symptoms. In fact, due to the negative side effects associated with antibiotics, long term regimens should be avoided if possible.